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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/036,469      | 01/07/2002  | Ram S. Narang        | D/96176D1D          | 6090             |

7590 12/18/2002

Patent Documentation Center  
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Rochester, NY 14644

[REDACTED] EXAMINER

HAMILTON, CYNTHIA

[REDACTED] ART UNIT

[REDACTED] PAPER NUMBER

1752

DATE MAILED: 12/18/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-1

|                              |                              |                  |  |
|------------------------------|------------------------------|------------------|--|
| <b>Office Action Summary</b> | Application No.              | Applicant(s)     |  |
|                              | 10/036,469                   | NARANG ET AL.    |  |
|                              | Examiner<br>Cynthia Hamilton | Art Unit<br>1752 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 07 January 2002.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 10-13,16-27,30,31,33,38-41,44,45 and 47-56 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) \_\_\_\_\_ is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) 10-13,16-27,30,31,33,38-41,44,45 and 47-56 are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

|  |  |
|--|--|
| <p>1)<input type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2)<input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3)<input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .</p> | <p>4)<input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____ .</p> <p>5)<input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6)<input type="checkbox"/> Other: _____ .</p> |
|--|--|

## DETAILED ACTION

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 10-11, 30, 38, 39, drawn to a process of making an allyl ether polymer and the allyl ether polymer therefrom, classified in class 525, subclass 471.
  - II. Claims 12-13, 31, 40-41, drawn to a process of making an epoxy polymer from an allyl ether polymer and the polymer therefrom, classified in class 525, subclass 471.
  - III. Claims 47-48, 54-56, drawn to a process of reacting a halogenated polymer and an epoxy group containing an alcohol salt and the polymer therefrom, classified in class 525, subclass 471.
  - IV. Claims 18-27, 49, 50-53, drawn to a process of crosslinking and/or chain extending, classified in class 430, subclass 320.
  - V. Claims 17, drawn to an ink jet print head, classified in class 347, subclass 20.
  - VI. Claims 16, 33, 44-45, drawn to a crosslinked or chain extended compositon, classified in class 528, subclass 125.

**If Invention IV is elected, the following election of species must also be made.**

This application contains claims directed to the following patentably distinct species of the claimed invention:

Species A - Claims 21-22, 26-27, 52-53, drawn to a process of imagewise actinic radiation crosslinking and/or chain extending, classified in class 430, subclass 320.

Species B - Claims 20, 25, and 51, drawn to a process of crosslinking and/or chain extending a polymer via actinic radiation, classified in class 522, subclass 149.

Species C - Claims 19, 24, and 50, drawn to a process of crosslinking and/or chain extending a polymer via heating, classified in class 528, subclass 125.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, ie one disclosed process using one composition, for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 18 and 52 are generic. The applicants are required to choose one specific example of this process as disclosed.

The exact nature of the resin used as well as nature of processing is required as part of the election.

Applicant is advised that a response to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and

the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a photosensitive resin crosslinkable without the presence of epoxy groups and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Inventions IV and V are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another materially different process such as etching the crosslinked material to form a pattern instead of imaging or placing the material down in an imagewise manner via inkjetting.

Inventions V and VI are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a protective insulating layer which was overall cured and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention. The inkjet

head of Invention VII requires that the cured material of Invention VI be further manipulated, i.e. developed and layers added, to obtain an inkjet print head as set forth.

3. Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions make different epoxy polymers in different methods.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

6. Due to the complexity of this restriction requirement and election of species, the examiner did not attempt to call applicant to obtain an provisional election.

7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

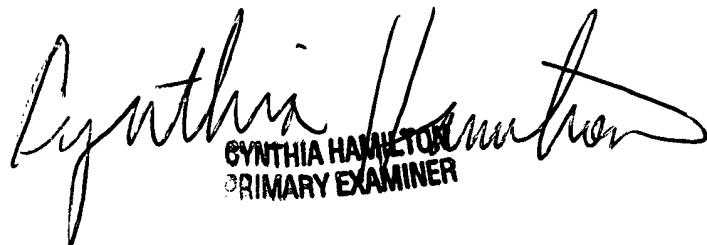
8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

*Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cynthia Hamilton whose telephone number is (703) 308-3626. The examiner can normally be reached on Monday-Friday, 9:30 am to 5:00 pm.*

*If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached on (703) 308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.*

*Any inquiry of papers not received regarding this communication or earlier communications, or of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Center of Technology Center 1700 whose telephone number is (703) 306-5665.*

Cynthia Hamilton  
December 14, 2002



The image shows a handwritten signature in black ink. Below the signature, the name "CYNTHIA HAMILTON" is printed in a smaller, bold, sans-serif font. Underneath that, "PRIMARY EXAMINER" is also printed in a similar font.